

Nanopublication — Computational Image Analysis - AQC0737

by Arnaud Quercy · F Minor - Research on Harmony - Variation 11 · 2024













Claim 1: Computational Image Analysis - AQC0737

Computational image analysis [3] of artwork F Minor [1] - Research on Harmony - Variation 11 (AQC0737) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 3024x4032 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		17.8	blue-violet	cornflowerblue
2		14.3	red-violet	dusty mauve
3		13.5	orange	dark brown
4		13.0	blue-violet	cadetblue
5		11.0	orange	burlywood
6		10.5	red-orange	very dark gray
7		9.0	red-violet	dusty mauve
8		5.1	red-orange	indianred
9		4.6	red-orange	salmon
10		1.2	red-orange	firebrick
11		0.3	violet	very dark purple [Accent]
12		0.3	blue	steel gray [Accent]

Color Families:

Family	%
blue-violet	30.8
orange	24.5
red-violet	23.3
red-orange	21.4
violet	0.3
blue	0.3

Accent Colors:

Hex	Family Name	Chroma
39234F	violet	very dark purple 30.5
97A7B2	blue	steel gray 8.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.183
Mean Local Roughness	0.019
Roughness Uniformity	0.016
Edge Density	0.098
Mean Gradient Magnitude	0.152
Gradient Variance	0.029
Gradient Smoothness	0.0
Directional Coherence	0.01
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.648
Spatial Variation	0.139
Texture Consistency	0.534

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.428
Brightness Variance	0.183
Brightness Uniformity	0.572
Brightness Skewness	0.048
Brightness Entropy	7.15
Rms Contrast	0.183
Michelson Contrast	1.0
Weber Contrast	0.726
Mean Local Contrast	0.021
Contrast Uniformity	0.196
Dynamic Range	1.0
Effective Dynamic Range	0.616
Shadow Percentage	39.1
Midtone Percentage	50.194
Highlight Percentage	10.706
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.011
Medium Contrast	0.026
Coarse Contrast	0.034
Multiscale Contrast Ratio	0.31
Edge Contrast	0.152
Contrast Clustering	0.466

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.781
Color Clustering	0.48

Metric	Value
Color Transition Smoothness	0.608
Transition Uniformity	0.813
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.498
Saturation Variance	0.012
Low Saturation Ratio	0.032
Medium Saturation Ratio	0.928
High Saturation Ratio	0.04
Saturation Clustering	0.999
Hue Concentration	0.397
Complementary Balance	0.111
Analogous Dominance	0.526
Temperature Bias	0.314

Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

REFERENCES

- [1] Arnaud Quercy (2024). F Minor - Research on Harmony - Variation 11 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0737.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/f-minor-research-on-harmony-variation-11_86u.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

5f865bd52a93d8ce6a779ab2550e2f5a23b-f61480f54618f8aa768c3f1d9388c

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0234
Asset code	AQC0737
Version	1
Published	2026-04-09

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Published by: Art Quam Anima Publishing New York LLC — publishing.artquamanima.com

Date of publication: 2026-04-09

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/02/AQC0737-computational-image-analysis-aqc0737.pdf>

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